

Xanthomonas Leaf Spot of *Photinia*¹

J. W. Miller²

INTRODUCTION: *Photinia*, native to South and East Asia, and the Himalayas to Japan and Sumatra, belongs to the family *Rosaceae* (Bailey 1976, Mabberley, 1989). Of the 40 species in the genus, three are grown as ornamental shrubs and hedges because of the showy, red coloration that develops in the new growth. In Florida, *P. x fraseri* Dress. is the most commonly grown species (Lambe and Ridings 1979), and *P. glabra* (Thunb.) Maxim. is also grown (Burch *et al.* 1988). In recent years, a leaf spot disease has developed that consistently yields the bacterium *Xanthomonas* upon isolation.

SYMPTOMS AND DISEASE DEVELOPMENT: The disease begins as small, dark leaf spots that may have water-soaked margins. These lesions develop into angular, dark gray to brown areas with variable chlorosis around them (Fig. 1). The pathogen attacks the new growth and is more severe during warm, rainy periods. The disease occurs in nurseries where plants are crowded and growing vigorously, with bacterial spread occurring by splashing rain or overhead irrigation. The disease does not seem to be a problem in the landscape.

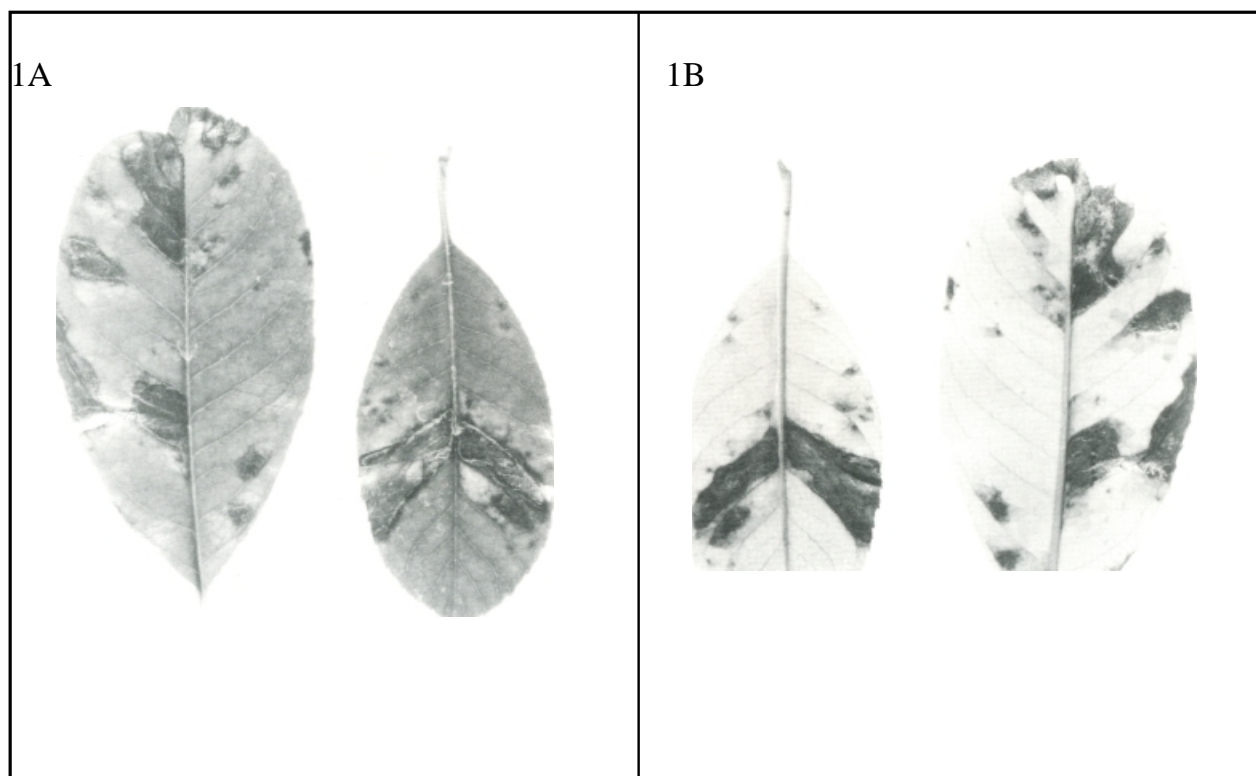


Fig. 1. *Xanthomonas* sp. on *Photinia* sp. showing dark, angular lesions on the A) upper and B) lower surface of the leaves. Photography credit: Jeffery W. Lotz (DPI No. 87099-28 & 30).

1 Contribution No. 712, Bureau of Entomology, Nematology, and Plant Pathology - Plant Pathology Section.

2 Plant Pathologist, FDACS, Division of Plant Industry, P. O. Box 147100, Gainesville, FL 32614-7100.

CONTROL: It is best to have the plants well spaced for good air circulation to allow rapid drying of the foliage. Overhead irrigation should be avoided. Copper sulfate is registered for use on ornamentals according to the Florida Plant Disease Control Guide (Simone *et al.* 1994-95).

SURVEY AND DETECTION: Look for angular, dark gray to brown leaf spots with irregular chlorotic halos and occasionally water-soaked borders. This differentiates from the more common *Entomosporium* fungal leaf spot, which tends to be more circular and have blister-like fruiting structures in the necrotic tissue (Lambe and Ridings 1979).

LITERATURE CITED

- Bailey, L.H. 1971.** Manual of cultivated plants. The MacMillan Co. New York. 1116 p.
- Burch, D., D.B. Ward, and D.W. Hall. 1988.** Checklist of the woody cultivated plants of Florida. Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL. SP-33. 80 p.
- Lambe, R.C. and W.H. Ridings. 1979.** Entomosporium leaf spot of *Photinia*. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Gainesville. Plant Pathology Circular No. 206. 2 p.
- Mabberley, D.J. 1989, reprinted with corrections 1993.** The plant-book. Cambridge University Press, Cambridge, England. 707 p.
- Simone, G., M. Elliot, and R. Mullin. 1994-95.** Florida plant disease control guide. Vol. 1. Institute of Food and Agricultural Sciences, Florida Cooperative Extension Service, University of Florida, Gainesville, FL. 362 p.

PI-97-T-13